contact 13

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Christian Medical Commission World Council of Churches 150 Route de Ferney 1211 Geneva 20 Switzerland

rural health

The need for an effective programme of public health in this rural area of the Bandundu Province has been evident for many years. The major preventable diseases - intestinal helminths, malaria, malnutrition, tuberculosis, measles, tetanus, poliomyelitis - have always accounted for more than half the admissions to the pediatric ward and, except for measles and polio, are likewise very prevalent in the adult population. The mortality from these preventable diseases is high, but the morbidity is even higher, contributing indirectly as well as directly to the high rate of mortality especially among infants, and providing an almost insurmountable obstacle to the economic development of the area. Thanks to the efforts of the government medical services, smallpox and trypanosomiasis no longer pose a health problem, and leprosy and schistosomiasis are not endemic in this region. However, no major efforts have been undertaken to diminish the prevalence of intestinal parasites, malnutrition, malaria and measles; and it has been only during the past two years that measures have been taken against tuberculosis and polio.

A programme of curative medicine has been in operation at Vanga since 1910 and has earned a widespread and favourable reputation. The 200-bed hospital at Vanga, with a surrounding network of ten rural health centres and dispensaries, is the base of operations for the present programme in public health. The establishment of a training school for health officers and nurse midwives in 1962 was another essential step in the creation of a public health programme because students of this school, especially the health officers in the rural medicine programme, have provided manpower for many of the activities of the programme. In the five sectors (counties) surrounding Vanga live more than 300,000 people in small villages of from 100 to 2,000 people; this is the 'target population' for the public health programme.

In 1967 the decision to launch a campaign of rural sanitation was made. This decision was made by the medical and church leaders together, and a programme of cooperation between church and medical services was outlined. The first seminar in sanitation was held in November 1967 at the Mayoko church post, where some 50 village chiefs and elders, together with the pastor and village church leaders, gathered together to discuss the importance of sanitation and the means of making it effective in the villages. The results of this initial seminar were meager; only one village carried through the sanitation programme to completion. However, other seminars followed at Vanga, and slowly more villages began an effective participation. During 1968 the programme increased to the point where teams of students and often a doctor spent nearly every weekend in a village following through this campaign.

In 1969 it was decided to establish a department of public health with a full-time staff. A secretary was hired, followed by a health officer who had recently graduated from the Vanga Training School. Mr Ruphin Gaziala, a graduate public health officer ('officier sanitaire'), was engaged as head of the Department of Public Health in September 1969; and since that time the activities of the department have increased rapidly.

A request for supplementary financial aid was made to the Oxfam Foundation in England in early 1970. This request was granted, making possi-

ble the purchase of a new vehicle, several bicycles, five microscopes, two refrigerators and other equipment; the grant likewise included supplementary budget support for two years.

A second health officer was hired, and eight young men were given a training of four months' duration to prepare them to work as clerks in the various programmes. The rural sanitation programme was greatly expanded; an extensive programme of family health clinics was established; efforts were intensified in nutrition; a programme of tuberculosis control and case finding was developed; and a campaign of vaccination was inaugurated.

The experiences gained in these programmes may serve as useful guides to others engaged in similar efforts elsewhere; seminars at Vanga for health workers from other parts of Zaïre on the techniques of public health are now being organized and will be funded primarily by Oxfam. Statistical evaluation of the methods is the greatest need; results on this are expected in the near future.

The following is a brief description of the various programmes carried on by the Department of Public Health of the Vanga Hospital.

Programme of Rural Public Health

Vanga Hospital, Republic of Zaïre

by Daniel E. Fountain, MD

Dr Daniel Fountain of the Baptist Hospital, Vanga, is well known for his manual on the development of the programme for the preparation of the medical assistants at the Vanga Hospital. This edition of CONTACT describes the programme of public health which is being carried on by this hospital in the surrounding area. The uniqueness of the programme is that it helps to demonstrate the practical manner in which a hospital moves into the field of preventive medicine to meet the needs of the community for relevant health care. The results are manifold - it reduces the eventual calls upon its own beds and improves the general health of the community. In this instance it stimulates self-help and also provides a very good field of practical experience for the preparation of staff.

I. THE PROGRAMME OF RURAL SANITATION

A. The Problem

The prevalence of intestinal helminths - ascaris, ankylostomes, strongyloides, and others - is almost universal in this area. Spot checks - one brief stool exam - in several villages have shown a prevalence of over 70 percent, and undoubtedly a more careful study would raise this prevalence to almost 100 percent. The effect of these parasites on the general health is well known - anemia, malnutrition, lassitude, and occasionally accidents such as intestinal obstruction - and together with malnutrition they diminish the resistance to other conditions, especially infections, to such an extent that they can be considered a major cause of death. The hot, humid climate, together with the very low level of sanitation and hygiene, permits the maintenance of a high level of transmission. Since the material and the methods for combatting this scourge are simple and within the means and comprehension of the general population, with the results being readily appreciated by them, it was decided that this should be the initial campaign in preventive medicine.

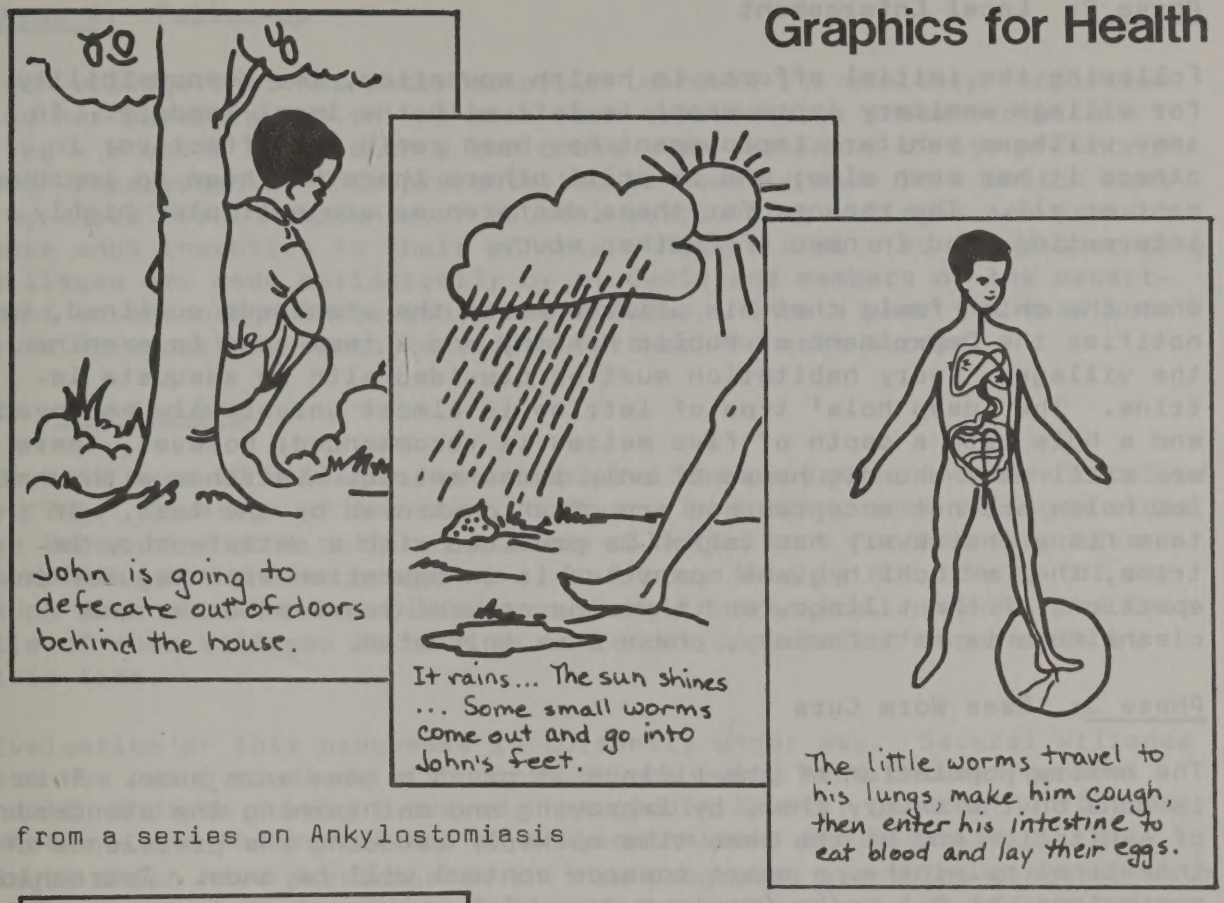
B. The Programme

Phase 1: Health Education

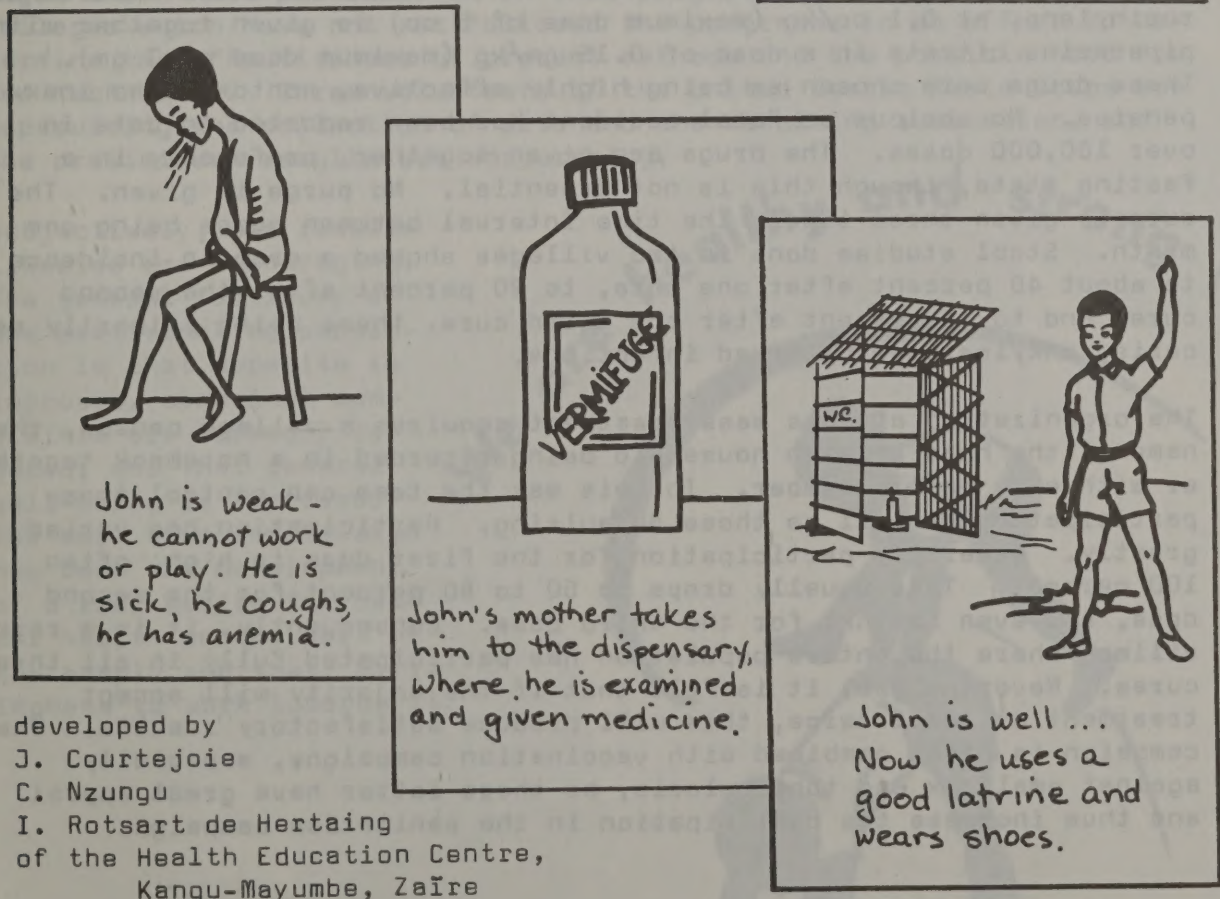
The initial phase of the campaign is health education. The first contacts are made with the local village authorities; if they demonstrate interest in the programme and a willingness to cooperate, as has been almost universally the case, a seminar is arranged for the leaders of the several villages in a given area. During this seminar, usually of two days' duration, group discussions are held, demonstration of health principles are presented, and filmstrips are shown on parasite transmission. Liberal use of flip charts and other visual aids is made; skits illustrating certain principles of hygiene have been found to be most effective. A major effort is made to discuss and to understand the traditional concepts of disease - its origin and its transmission - with attempts being made to translate the scientific concepts of disease into traditional terminology so as to facilitate understanding. The principles of sanitation are then outlined, and the problem of the local enforcement of these principles is presented to the leaders. Every effort is made to lead them to accept the responsibility themselves for this enforcement, and the programme has met with success only in those areas where the leaders themselves have assumed this responsibility. In these discussions is stressed the importance of a village hygiene committee armed with no other authority than that of the chief himself and local social pressure. No help is sought from outside civil authorities - police, military - but the principal motivating force must be developed within the leaders themselves.

Following the discussions with the leaders, sessions are held with the population at large to present in simple form the principles of hygiene - the danger of fecal contamination, the hazards of worm infestation, and the means of preventing worm transmission. Conferences in the primary schools are of help as well as discussions with the school directors and teachers.

Graphics for Health


John is going to defecate out of doors behind the house.
It rains... The sun shines ... Some small worms come out and go into John's feet.
The little worms travel to his lungs, make him cough, then enter his intestine to eat blood and lay their eggs.

from a series on Ankylostomiasis


John is weak - he cannot work or play. He is sick, he coughs, he has anemia.
VERMIFUGE
John's mother takes him to the dispensary, where he is examined and given medicine.
WC.
John is well ... Now he uses a good latrine and wears shoes.

developed by
J. Courtejoie
C. Nzungu
I. Rotsart de Hertaing
of the Health Education Centre,
Kangu-Mayumbe, Zaïre

Phase 2: Local Enforcement

Following the initial efforts in health education, the responsibility for village sanitary improvement is left with the local leaders. In some villages sanitary improvement has been rapid and effective; in others it has been slow; and in still others there has been no improvement at all. The reasons for these differences are multiple, highly interesting, and in need of further study.

When the chief feels that his village meets the standards outlined, he notifies the Department of Public Health; and a team goes to examine the village. Every habitation must be provided with an adequate latrine. The 'deep hole' type of latrine is almost universally employed, and a hole with a depth of five metres is recommended; however, there are still many who dig holes of only three metres. Latrines with shallow holes are not accepted and are often destroyed by the team. If the team finds that every habitation is provided with a satisfactory latrine, that a local hygiene committee is in operation with regular inspections of the village, and that the general level of order and cleanliness is satisfactory, phase 3 is initiated.

Phase 3: Mass Worm Cure

The entire population of the village is given a mass worm cure. This is done on the theory that, by improving and maintaining the standards of sanitation and at the same time markedly reducing the prevalence of intestinal helminths, a start towards control will be made. Tetrachloroethylene, at 0.1 cc/kg (maximum dose of 5 cc) is given together with piperazine citrate in a dose of 0.15 gm/kg (maximum dose of 3 gm). These drugs were chosen as being highly effective, nontoxic and inexpensive. No serious or fatal accident has been reported to date in over 100,000 doses. The drugs are given together, preferably in a fasting state, though this is not essential. No purge is given. The cure is given three times, the time interval between cures being one month. Stool studies done in two villages showed a drop in incidence to about 40 percent after one cure, to 20 percent after the second cure, and to 15 percent after the third cure, these being primarily ascaris, ankylostomes or mixed infections.

The organization of this mass treatment requires a village census, the name of the head of each household being recorded in a notebook together with each family member. In this way the team can control those participating as well as those defaulting. Participation has varied greatly. Generally participation for the first dose is high, often 100 percent. This usually drops to 60 to 80 percent for the second dose, and even further for the third dose. Consequently, it is a rare village where the entire population has participated fully in all three cures. Nevertheless, it is felt that if the majority will accept treatment at least twice, this will produce satisfactory results. The campaign is often combined with vaccination campaigns, especially against smallpox and tuberculosis, as these latter have great appeal and thus increase the participation in the sanitation campaign.

Phase 4: Follow-up

Each village that has satisfactorily improved its sanitary facilities and has participated in the mass worm treatment is presented with a flag - a white field with a red cross - as testimony of its efforts at self-improvement. This presentation is usually made in a church meeting where the inhabitants of several surrounding villages are present; this adds incentive to their efforts. Repeat visits to the cooperating villages are made periodically by students and members of the department to encourage their continued efforts. Once a year the mass worm cure is repeated, again to reduce further the worm burden.

C. The Results

To date over 80 villages have completed the programme and have received a flag. Coverage of the area, however, is spotty; some villages close to Vanga have done nothing, whereas villages much further away have completed the entire programme. In theory this is not ideal, for any such area should be completely covered; in practice, however, the inertia of some villages is such as to render cooperation impossible at this time.

Evaluation of this programme is currently under way. Several villages are now being studied, with correlations being made between general health indices - weight curves, hemoglobin levels, general nutritional status - and the prevalence of ankylostomiasis and ascariasis. Villages which have participated in this programme are being compared with villages which have not yet followed the programme in an effort to determine the effectiveness of present methods and the possible need for new techniques. Three volunteers of the United States Peace Corps are supervising the collection of data and the resulting evaluation, and the preliminary results are encouraging.

Subjectively, the results likewise are encouraging. The general testimony of the participating population is that appetite is improved, abdominal complaints are markedly reduced, and that general well-being is improved. The most encouraging sign has been the development of a real desire for better health on the part of the people and their willingness to work towards it.

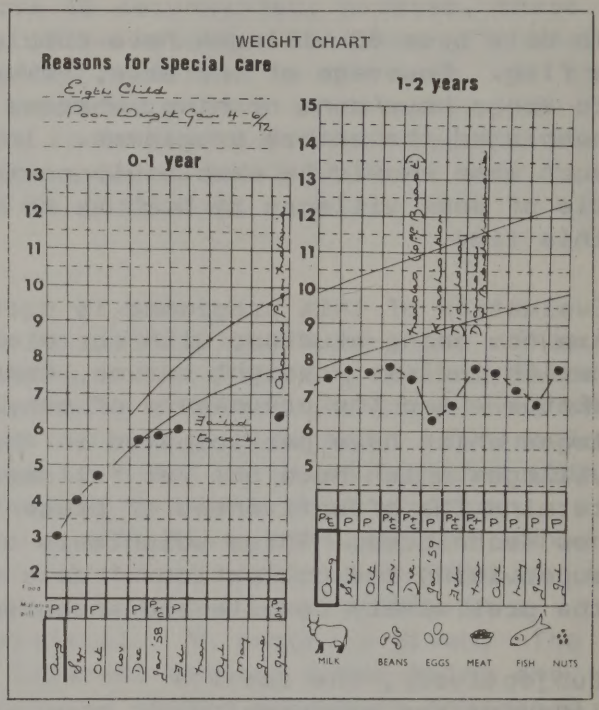
II. THE FAMILY HEALTH PROGRAMME

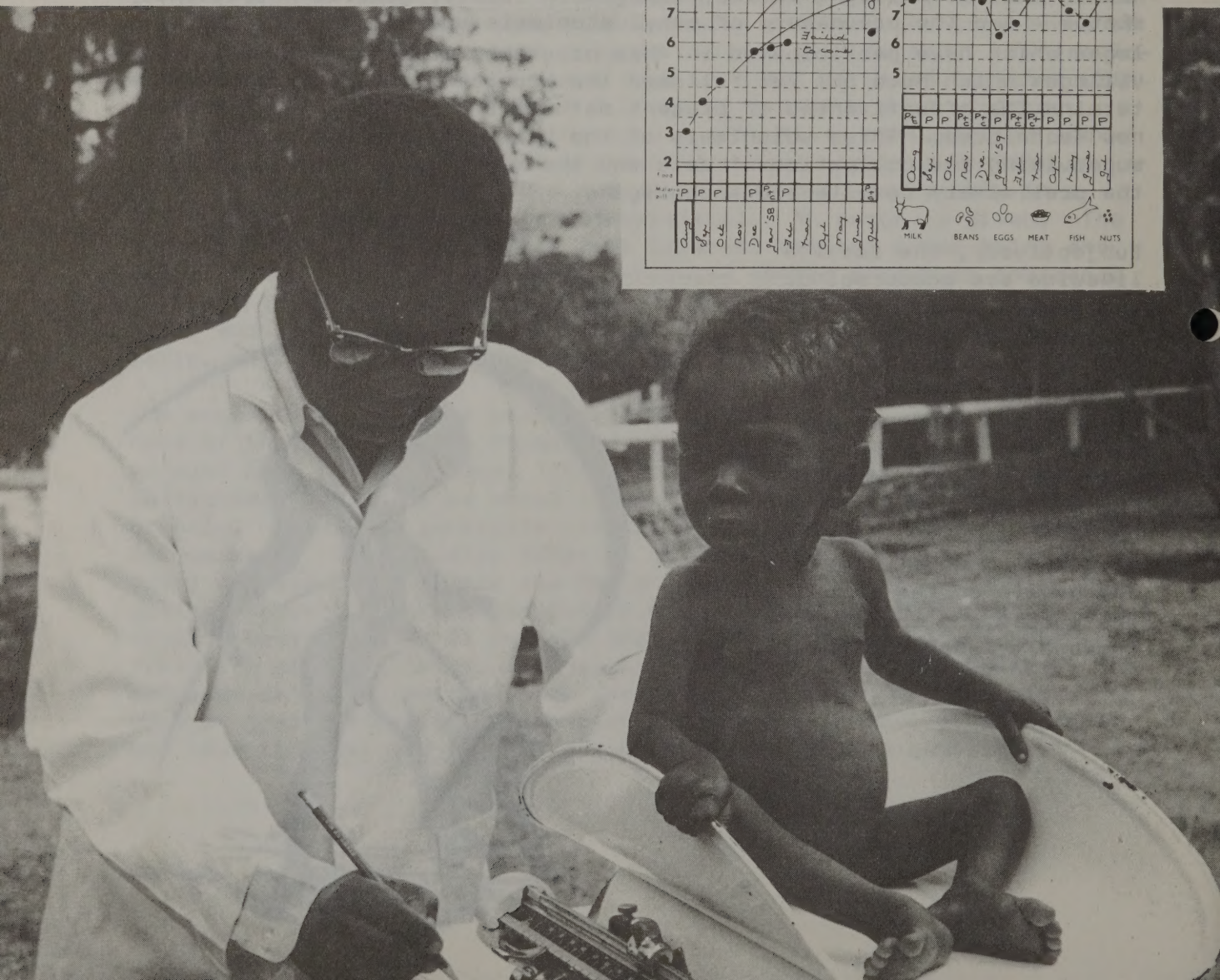
A. The Problem

The mortality of infants and children under the age of five in this area is from 30 to 40 percent. The major killers are malaria, respiratory infections, measles and diarrhea. However, intestinal helminths and subclinical malnutrition are widespread and are very important contributing factors to this mortality. Polio and tetanus are also prevalent, though not in epidemic proportions. Maternal mortality is high, although no accurate statistics are available on this; but maternity care is accessible to less than 25 percent of the population.

B. The Programme

Monthly family health consultations are held at Vanga and in 15 surrounding posts. A total of 5,000 children and over 1,000 mothers are registered in this programme. The programme follows generally that outlined by Dr David Morley in his chapter in the symposium "Medical





Care in Developing Countries", edited by Dr Maurice King. Health education is an important phase, and at each consultation some aspect of hygiene or of nutrition is presented. The importance of family spacing, both for the benefit of the mother and as a prevention of protein malnutrition in the children, is stressed; and facilities for family spacing (mainly IUDs) are available for all who wish them. The weight charts as developed by Dr Morley and initially provided by USAID are used, these being taken home by the mothers. However, experience has shown that the weights are often improperly recorded; and more emphasis needs to be given to training clerks to do this improtant but simple operation correctly. In addition to the cards, a registry is kept and each visit is recorded for each child. In this way the department keeps a complete record of all the consultations and can pick up deaths and defaulters. The registry likewise serves as a base for statistical analysis and programme evaluation. One Peace Corps volunteer is participating in this programme, primarily to evaluate the effectiveness of the methods.

All infants receive chloroquine, 100 mg per week. In theory this once-weekly dose reduces the incidence and severity of malaria without totally suppressing it and thus eliminating the possibility of developing resistance. Documentation of the real effect needs to be done. Each child is then examined by the health officer in charge. Those in good health are given 30 cc of a 1 percent solution of ferrous sulfate, and the mother is instructed to give one teaspoon daily; she takes the medicine home and treats the child herself during the succeeding days. Since the concentration is so weak, even if the child absorbed the entire amount, 300 mg, at once, he would not suffer ill effects. It is felt that this practice, even though with little beneficial effect physically, is good health education for the mother as well as an added incentive for her to bring the child regularly to the consultation. If the child present symptoms, he is treated accordingly: a weak cough mixture, 1 percent ammonium chloride, for cough; 1 percent chloroquine solution for fever; a salt-sugar concentrate for diarrhea; sulfur ointment for scabies; 1 percent aqueous mercurochrome for conjunctivitis; and chewable vitamins for signs of malnutrition.

Numerous problems have developed in this programme. Regular participation is strongly encouraged but not often achieved. Children often drop out after the first year or upon birth of a sibling, even though efforts are made to convince the mother to continue bringing the child until the age of five. The lack of a 'free gift' - soap, clothing, etc. - discourages some mothers; but this lack is intentional in an effort to convince them that regular health care is of great value in and of itself.

C. The Results

As yet, complete statistics are not available. Studies of splenic index, weight curves, rough incidence of malaria, death rate from supposed attacks of malaria, and the incidence of probable cerebral malaria are being done. At one recent consultation where regular clinics have been held for over a year, a splenic index of 6 percent was found, whereas prior to the start of the clinics the incidence surpassed 75 percent.

III. NUTRITION EDUCATION

A. The Problem

Protein deficiency is a common disease throughout this area and seems to be on the increase. Like elsewhere, it affects primarily the one- to five-year age group, coming on usually after the birth of a sibling, this causing premature weaning. The etiology of this disease is primarily social. Ignorance of the principles of nutrition is a leading cause. Family instability - divorce, unwed mother, marital conflict, all with consequent neglect of the child - is often involved. According to local African tradition, the cause is the displeasure of the ancestors at the neglect of some ancestral rite or function or an insult or injury rendered to another; much time is wasted after the onset of the disease in following traditional methods of treatment.

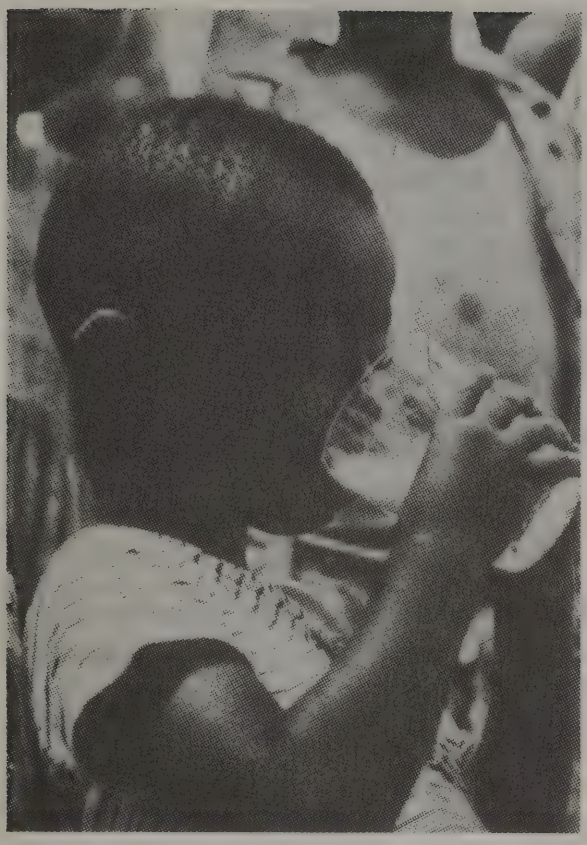
A dearth of animal protein in the area contributes to this disease. Fresh milk is unknown; eggs are small and usually used for hatching and do not form a regular part of the diet. Poultry are malnourished themselves and, when utilized for food, are usually served to the adults. Goat meat is likewise used for feasts and for adult consumption; goat milk is not utilized at all. Vegetable sources of protein are limited to corn, peanuts, manioc greens, gourd seeds, some field rice, mushrooms, and other greens. Beans, unfortunately, are not utilized; and soya is not known.

B. The Programme

A demonstration garden has been in operation at the hospital for over two years. This garden, about an acre, is used to provide greens for the medical students and for hospital patients and is likewise a demonstration of gardening techniques. Soya is being introduced, and various types of beans are being grown. A demonstration compost heap provides humus material for the plots and is used to illustrate the difference in growth and productivity made by the addition of organic humus to the soil.

Mrs Gaziala, the wife of the chief of the Public Health Department, has been trained in nutrition education at the WHO Health Centre at Ndjili-Kinshasa. Three times weekly she prepares demonstration meals for the mothers of the malnourished inpatients, inviting also pregnant mothers awaiting delivery and any others interested to observe. Tours of the garden are conducted to demonstrate the techniques of good cultivation. There is not as yet sufficient quantities of soya or of beans either to feed patients or to offer as seeds to the population.

The hospital has set up a nutrition centre, where patients with malnutrition are being treated. Two houses, each with six small rooms taking one or two patients, have been built in the midst of the hospital garden. A village-type cookhouse has been constructed where Mrs Gaziala can prepare demonstration meals using only the food products readily available. These young patients are being treated only with protein-rich food; no routine medicines are given, for the goal is to convince the parents that the origin of the disease is the lack of good



food and that it can be effectively prevented only by good food. Following the programme outlined by the WHO and the Catholic Soya Project in Luluabourg, efforts are being made to incorporate a corn-soya mixture in the family dietary regime, while at the same time attempting to introduce soya cultivation to the people. This will obviate the necessity of depending on oversees sources for powdered milk, protein-rich wheat, and other food products. Only as local sources of protein-rich foods can be incorporated into the diet will there be found a permanent solution to the problem.

A series of seminars on nutrition and gardening has been prepared. Series of slides on soya, bean cultivation, compost making and its importance, and the utilization of these protein-rich foods have been prepared for use in these seminars. They are now being conducted in the church posts of the area, with village chiefs and leaders, pastors, teachers and, most importantly, their wives being invited to attend. It is expected that as seeds become available, new foods - soya, beans, etc. - can be introduced into the area by these seminars. Extensive field follow-up will be necessary, however, in order to assure that the proper techniques necessary for success are being utilized.

IV. TUBERCULOSIS CONTROL PROGRAMME

A. The Problem

The prevalence of tuberculosis, in numerous forms, is quite high in this region. The exact prevalence is not known, but from many villages 10 to 15 cases are now under treatment. It is probable that perhaps 50 percent of cases, especially the open cases, remain in the villages without consultation for reasons of fear, superstition, unwillingness to be separated from families, or for economic reasons. The most frequent form of the illness is that of tuberculous adenitis, with pulmonary tuberculosis in second place. However, it is evident that all cases come from those open cases who are disseminating bacilli, for bovine tuberculosis plays no role in this region, where fresh milk is not available.

B. The Programme

Tuberculosis control requires a two-pronged attack:

1. finding, treating, and thus removing from the 'infector pool' all cases of open or contagious tuberculosis
2. vaccinating with BCG all susceptibles to increase their resistance to the disease

1. Vaccination programme

Using BCG vaccine provided by the WHO office in Kinshasa, the department vaccinates regularly all newborns in the Vanga Hospital maternity. A regular programme of vaccination is carried out in the family health consultations in order to reach those born in the villages. All schoolchildren, primary and secondary, at Vanga and in the regional schools of the area have been vaccinated. Some 30 villages have all been vaccinated, adults as well as children, without prior tuberculin testing, in conjunction with the rural sanitation programme. However, the team of vaccinators of the WHO covered the entire area during August and September of 1970, so that all infants through adolescents have received the BCG vaccination.

2. Ambulatory treatment of tuberculosis

In keeping with the recent trend to treat tuberculosis on an ambulatory basis, the department set up a programme of ambulatory treatment over three years ago. One of the health officers in the department supervises the programme, with one of the doctors as consultant. A central registry is kept where all patients are registered. There is likewise a 'call calendar', a dated notebook in which the names of all those who must appear on each date for treatment are written; thus the health officer can quickly determine the defaulters. Those who did not appear are immediately sent a convocation by local post; if they do not respond to this, a second convocation is sent within a week through the local civil authorities. In almost all cases this suffices to get the patient in for his treatment. During 1969 143 patients were treated on an ambulatory basis; only 8 were lost to view.

The drug regime varies according to the diagnosis. Patients with pulmonary tuberculosis receive daily streptomycine for one or two months in association with the INH (thiacetazone combination) TB 1. Then TB 1 is continued for a total of 12 to 18 months on an ambulatory basis, one pill a day. Patients with tuberculous adenitis receive TB 1 daily for 6 to 12 months. At the end of the stated cure, control studies are done - X-ray, sputum studies (smears), weight, RBC sedimentation rates - and the patient is reexamined by the doctor to determine his situation. In view of the unreliability and variability of the sedimentation rate, more emphasis is attached to the patient's weight curve. The department has no means of ascertaining whether or not the patient actually takes his medicine; observation of his progress gives only a rough indication of his faithfulness in self-treatment. All antituberculous medication and most laboratory and X-ray studies are free of charge.

3. Tuberculosis case-finding

A team of three clerks has been trained during a four-month special course for a programme of itinerant tuberculosis case-finding. These three young men circulate through the villages on bicycles, spending from two to four days in each village. A brief general examination of the entire population for obvious signs of tuberculosis - enlarged nodes, weight loss, spinal lesions, chronic cough - is done, and sputum is collected on two successive mornings from all who cough. Smears are made directly, and the slides are returned to the base laboratory at Vanga for examination. All positive cases and all highly suspect cases are called in to the hospital, the positive cases for registration and initiation of therapy, the suspect cases for further diagnostic studies. Hopefully, if 50 to 75 percent of the undiagnosed open cases can be found in this way, put on treatment, and removed from the 'infector pool', this, together with the vaccination of susceptibles, will eventually, after five to ten years, bring about a reduction in the morbidity and the mortality from tuberculosis.

V. VACCINATION PROGRAMMES

BCG and smallpox vaccination campaigns have been carried on in conjunction with the WHO. The department continues to vaccinate all newborns.

A supply of oral Sabin antipolio vaccine was obtained from the government health service, and the 5,000 children registered in the family health clinics have been vaccinated against polio. Hopefully, additional quantities can be secured and this programme continued.

DPT vaccine has recently been obtained through the government pharmacy at favourable prices. This is now being offered to all who wish it at a nominal fee.

VI. THE FINANCIAL BASE OF THE PROGRAMME

The Vanga Hospital is a private, church-operated hospital without large endowment. The principal sources of funds for maintaining the programme in public health are:

1. overseas mission support in terms of personnel, materials and capital investment
2. US Peace Corps - personnel
3. a substantial grant from the Oxfam Foundation - a vehicle, other equipment and budget support
4. fees for worm cures - each person pays up to US$.10 (5K) for the first two cures; the third cure is free; this schedule has more than covered the cost of the worm control programme
5. fees for the family health consultations - each mother pays US$.06 (3K) a month per child
6. the sale of packaged medicines - small packets of chloroquine, aspirin, vitamins and iron have been prepared by the department in plastic envelopes including instructions in French and Kituba; these are sold to all who wish to buy at prices which help to support the department; it is felt that this is good health education, helping to create good habits of self-treatment

The Public Health Department has been conceived and developed on the principle that, insofar as possible, it should be self-supporting. Any public health programme with a large subsidized operating cost is doo doomed to failure in a developing society. Overseas budget support currently is about 40 percent of operating costs; hopefully this can be reduced in the future. Expatriate staff is only part time, except for the temporary services of the Peace Corps volunteers active in the evaluation programme. Thus it is felt that, even with total withdrawal of expatriate personnel and financial support, the bulk of the programme could continue.

The experiences gained in these programmes may serve as useful guides to others engaged in similar efforts elsewhere; seminars at Vanga for health workers from other parts of Zaïre on the techniques of public health are now being organized and will be funded primarily by Oxfam. Statistical evaluation of the methods is the greatest need; results on this are expected in the near future.

Photos by courtesy of the World Health Organization.

COMMENTS
from our Readers

H. Schwarz, MD
Acha-Tugi Hospital
Cameroon

In all discussions about reorientation of church-related medical work, there is one important aspect that has too often been overlooked - the person of the worker. And yet this is really a crucial point in our whole problem. Conferences, pamphlets, policy and strategy meetings are abundant; but the staff to execute the programmes is rarely taken into account.

Much energy is put into the instruction of mission boards, into teaching of church doctors; why, then, are the actual changes so ridiculously slow and awkward? Because we failed to get the correct people for the job! Most of our hardworking sisters and doctors have difficulties to absorb the new 'philosophy' (CONTACT No. 2, p.1) of medical help. This is not their own fault; they have been recruited under quite different circumstances. The actual breed of church medical workers represents a very peculiar selection; they have been engaged by an appeal to their hearts, and thus they are belonging to a type who by nature is more inclined to listen to his heart than to follow his intellectual conclusions - and the heart is always a short-sighted organ!

The disproportion between human suffering and available help calls for wise planning to make the most out of it, to reach an utmost efficiency (CONTACT No. 2, p.1; No. 3, p.1). In fact, this is not so much a philosophy than rather an argumentation, a good rational reasoning, dictated by an alert conscience and sense of responsibility.

Now, to help us carry out the agreed priority programmes, we have to ask for staff able to follow these basic arguments. Many missionaries are completely unsuitable candidates; their heart will always be an impediment to efficient work. They would need 'more brain and less heart' or at least the strength of character to have a balanced control over both.

The average church medical worker of today will intellectually approve the urge to set priorities; but in the corner of his heart he cannot help himself finding all these arithmetics a little bit respectless and indecent. In his eyes a multiple lifesaver has the same merit as a nurse washing some incontinent paraplegic or a chaplain bringing the last sacraments; there is no standard of value for human services and no reason for preferences. Calculating lives against lives - so and so many saved or lost for such and such an amount of money (CONTACT No. 2, p.3): "This is not far," one can hear, "from the Thalidomide abortions because of possible malformations (Belgium and elsewhere) or from the euthanasia of old, invalidated and otherwise useless citizens (Hitler)."

A device for bush clinics - morphine instead of insulin in coma - is, of course, more theoretically meant. However, in reality the case is known (personal communication) where the foreseeable amount to bring through a severe tetanus patient was fully invested into a tetanus vaccination campaign. As a result, many more lives were saved at the same price, minus the costs for deliberate oversedation of the nearly hopeless case to save him any longer suffering and to cut short the expenses for the direct benefit of the campaign.

The particular doctor was well aware of the conflict of conscience,

and he had managed it bravely, for like pity and mercy the human conscience is evoked much louder by an immediate encounter than by intellectually referred expostulations. This is a basic psychological fact we cannot overlook - the blind beggar has more chances than the poster showing a starving child far away. (Throwing bombs on a city with homes and schools was no problem for many a soldier who would not have sustained to raid the same buildings with his penknife stabbing the pupils one by one - M. Frisch: Tagebuch.) In the same way the appeal to the heart made by the moribund tetanus patient was likely to overrun the doctor's sense of responsibility, his concern for the health of the community, his impetus to save as many as possible.

Most of the today missionaries, sisters and doctors, would have postponed and sacrificed the 'many' for the sake of the 'one' next to them, claiming simply that we have to start with the 'neighbour' in its true meaning (Luke 10:29). They would have pointed as well to the story of the precious ointment poured over Jesus' head - one could have sold it to finance a big relief programme, but Jesus rejected this rational reasoning - a sacrifice from the heart is losing when done with calculations (Mark 14:5). True love is always somewhat injust and arbitrary.

Summing up, it is really a different job, to provide medical assistance for as many as possible, which means to create and to follow certain principles of efficiency and priority without compromise, or to help just every single one as found along the roadside, the policy of old-fashioned medical missions. The very extreme - namely, to reach all individuals without exception - is impossible due to limited resources; and the other one - only to assist those who come to ask for it - would be a caricature of the healing ministry. But the two practicable ways need each one a different type of executorial officer.

The existing kind of church medical worker can no more be changed by our teaching! Perhaps we may convince him to start a more community-based medicine, but he will never make the run! In spite of his goodwill he would stop and bend down at every individual suffering encountered along the road. And the continuous conflict would consume his energy and goodwill, leaving him a poor victim of his own uncontrolled heart.

Again, this is not his fault but his nature. He was told and he had accepted that his very service was to be 'faithful rather than successful'; he had been selected and employed just because of this special trait of personality. And candidates following an appeal to their hearts, a call for sacrifice, for hard work done without look to the outcome or the reward, such persons automatically belong to a class of people who are not accustomed to think in categories of rentability, useful effect, priorities, and so on.

They are still very much needed in the overall service, and our instructions with conferences, pamphlets, study groups have to continue just to make them aware of the various tasks and necessary adjustments. But for the real executing staff one has to select a new type of coworker with quite different background, formation and character.

This is the only too obvious conclusion: The recruitment deserves an equally well-studied reconsideration, if not even a more careful attention than the great problems of general policy, of reoriented programmes and the drawing of guidelines.

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To the Editor, CONTACT
Christian Medical Commission
World Council of Churches

I have been reading CONTACT with interest and have been stimulated enough that I am ready to make a statement from the grassroots, so to speak.

The burden of the thought I would like to express here is that there appears to be a very basic error in the starting assumptions of many who are guiding the development of community health and preventive medicine services. I would like to develop some arguments in support of my contention. I imagine that the first reaction to my point will be that it is quite obvious and that everybody has been agreeing to it all along. The only trouble is that there is very little evidence in what I can read in CONTACT and other publications on this subject or in the setup of existing model programmes that anyone really has thought about it. The only explanation I can give for this anomaly is that we all still suffer from an undue deference towards physicians or the medical profession. By this time you have guessed that my point is that physicians are not the best category of people to appoint as directors of community health or preventive medicine programmes - in fact, they are almost the last group we should turn to for filling these posts. I would hasten to add here that they are, however, some of the most valuable individuals to use as advisers and consultants and critics.

Now, let's look at a list of the qualities and skills and areas of knowledge that are required of a director of a community health, public health, preventive medicine or health care delivery programme. It would be difficult to list them in order of importance, but I will try to give them in roughly descending order of importance. This man or woman should be familiar with the local situation, be politically aware and astute, be a good economist, be evangelistic, be culturally sensitive, be sociologically sound, be experienced in personnel management, be flexible, be an educationist, be a nutritionist, be a decision maker, and be familiar with basic health principles.

We should take a closer look at the last requirement. It is my contention that the director of such a programme needs no more medical knowledge than what is taught in the hygiene course at teacher training college in most developing countries. If a problem comes up requiring more technical knowl-

edge than that, he can turn to his consultant, the friendly district medical officer. It is unlikely he will have to do this very often.

Not only is a medical education not necessary for this kind of job, but it is actually a detriment. I would like to ask Dr J. R. Sibley's indulgence, so that I could use his excellent, honest, down-to-earth report as an illustration of some of my points (CONTACT No. 5, October 1971).

Physicians are expensive to start with. A medical education is expensive.

By their training, physicians come with certain ideals and thought patterns that have to be undone before they can really be directors of these programmes. This is a painful and expensive process, described by Dr Sibley as "...contortions the likes of which no respectable project should have to endure." He goes on to describe these contortions in his Stage One and Stage Two sections. Even the little reeducation he got was expensive enough - a trip to the US and return and extensive travels in Korea. And this was only part of the whole process of reorientation.

In response to the two points above, you might have said that in Korea there is a surplus of physicians, so they form, in fact, the cheapest source of directors for this sort of programme. But this is not so in other developing countries. A good plastic surgeon could do a lot of good in many developing countries in his own field and still act as a consultant and critic of the community health programme.

Reading through Dr Sibley's list of "Causative Factors" gives one several good illustrations of my point.

Then what kind of persons would I suggest that we recruit as directors of local community health programmes? They have to be numerous, suited for the job according to the list of qualifications we listed previously, and motivated. At least in Ghana the group most adapted to the above criteria are experienced teachers in primary and middle schools. Many developing countries have been running teacher training colleges for many years and have graduated a substantial number of people who are gifted beyond the requirements of their jobs. They have the great advantage of being at home in the places we are talking about. Their qualifications would help them not to fall into the trap of trying to be all things to all people. Dr Sibley underlines: "It is absolutely essential...that the scope of the project be as limited as possible."

One possible argument against my point would be that there might be a psychological advantage to having the immunizations and health education delivered by the chap who does the fancy curative bit in the hospital. My own impression is that the psychological advantage is small and that when a man starts splitting himself between the two jobs, he is not very effective. Anyway, he can still contribute his prestige along with his consultancy and his criticisms without being the director.

But if there is still a question on this point, it might be worth doing some controlled research on it as the answer might make a big difference in the future of community medicine. It might be better to spend some money on this sort of research instead of spending it on jetting experts around the world to various conferences and consultations. I think the subject has been conferenced to death. Now we need to apply the principles we all agree on. The problem is to be sure to apply them most economically and most successfully. I don't think we will do it by combing the earth for missionary physicians whom we will turn into directors of community health programmes.

With best wishes,

Michael Gass

Michael Gass, MD

P.S. When I suggested that a teacher might be the best man for the job in this most imperfect of all worlds, I felt that this category of person most closely met the qualifications necessary while still being available in sufficient numbers to be practical. In countries like Ghana there are probably more teachers available than any other category of capable and intelligent people. As for their understanding of sociology and sensitive awareness of local mores and aspirations, if you use local people, they are more likely to come with these as part of their natural equipment. If you bring an expatriate in to do the job, you have to go through the expensive process of giving him this equipment - and this is the way we have been spending our money unnecessarily.